MANAGEMENT PLANS FOR SIGNIFICANT PLANT AND WILDLIFE HABITAT AREAS OF MARYLAND'S EASTERN SHORE: DORCHESTER COUNTY

APPENDIX B TO

FINAL REPORT

SUBMITTED TO:

Coastal Resources Division
Tidewater Administration

SUBMITTED BY:

Katharine A. McCarthy
Judith L. Robertson
Richard H. Wiegand
J. Christopher Ludwig

Maryland Natural Heritage Program
Forest, Park and Wildlife Service
Department of Natural Resources

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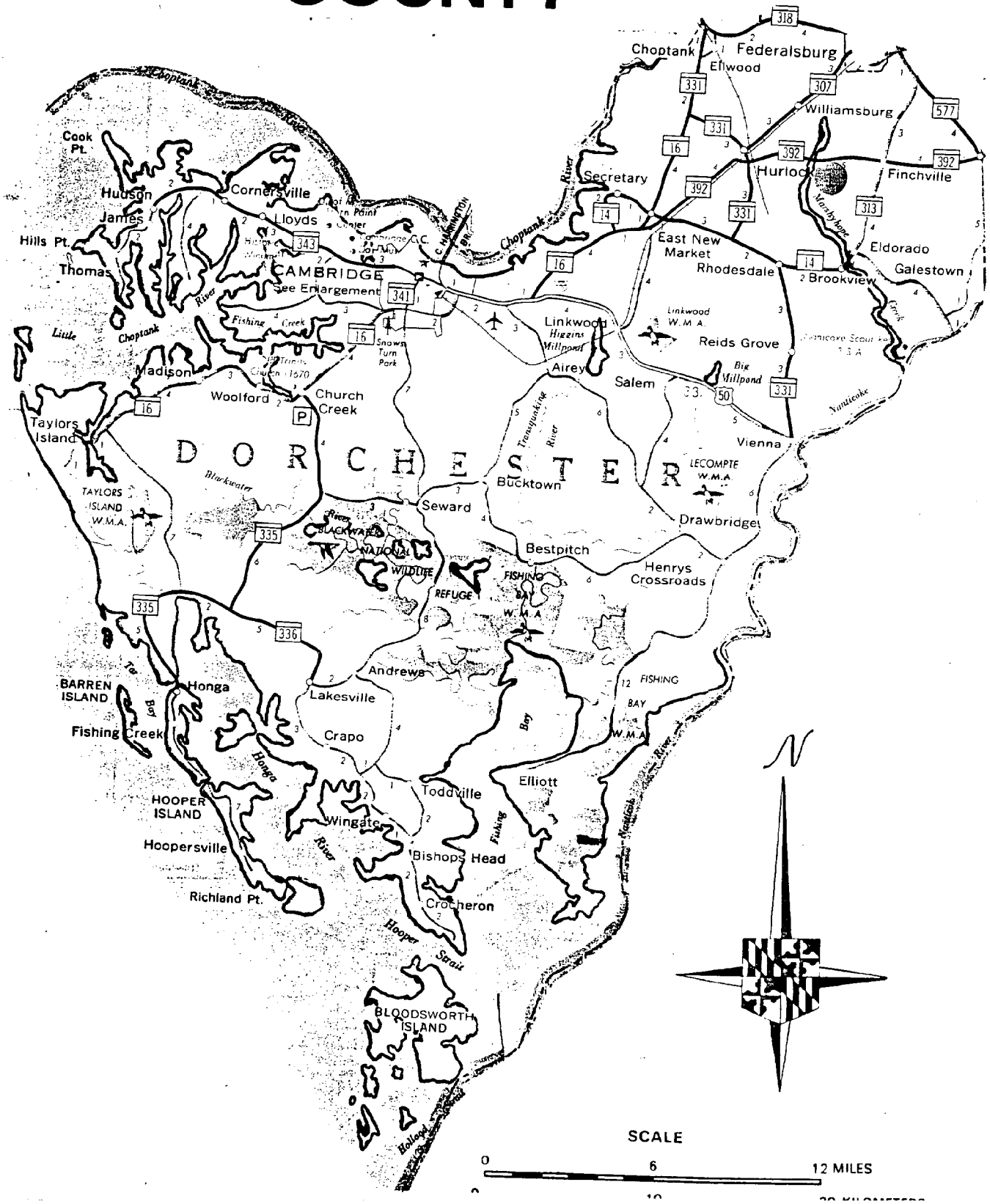
DORCHESTER COUNTY



DORCHESTER COUNTY: Protection Area Locations

Protection Area	Site # on County Map
Marshyhope Seasonal Pond	1

PROTECTION AREA SUMMARY

Protection Area Name: Marshyhope Seasonal Pond

County: Dorchester USGS Quad: Federalsburg

SUMMARY OF ECOLOGICAL SIGNIFICANCE:

This protection area contains an excellent example of a large seasonal pond dominated by herbaceous vegetation. Seasonal ponds are a non-tidal wetlands which fill with water in the winter and spring and dry in the summer as groundwater recedes. Non-tidal wetlands dominated by herbaceous vegetation are rare on the Delmarva peninsula. Many seasonal ponds have been lost due to ditching or filling for agriculture or residential and commercial development.

Two rare species are found in this seasonal pond. A rare amphibian inhabits the pond, and a rare plant species grows near the center of the pond.

OTHER VALUES AND SIGNIFICANCE:

Additional rare species of plants and animals may be found if this area is explored further. Because flora and fauna vary seasonally and annually with water levels, several visits would be required to develop a complete species inventory for this site. In years of particularly high or low water levels, many species not yet observed may be found.

THREATS AND MANAGEMENT NEEDS:

Threats

As with other seasonal ponds dominated by herbaceous vegetation, the most serious threat is ditching of either the wetland or nearby uplands. Once a ditch is excavated, the seasonal flux of water level is reduced, woody vegetation replaces the herbaceous community, and rare species are eliminated.

Management Needs

Artificial management of this habitat is not needed. Ditching should not occur within the protection area.

A program should be implemented to regularly monitor the size and reproductive success of the rare species. The

encroachment of woody vegetation in the seasonal pond should also be monitored.

BOUNDARY RECOMMENDATIONS:

The protection area boundary includes the rare species' wetland habitat and a buffer of upland forest required to protect the hydrological regime of the wetland.

SITE DESCRIPTION SUMMARY:

This 30 acre protection area consists of an upland mixed hardwoods-pine forest surrounding a circular two-acre seasonal pond. The composition of vegetation varies with water depth in the ponds. The edge of the pond is driest and contains typical swamp forest of the region, including Sweet Gum, Red Maple, Sweet Pepperbush, and greenbrier. The next zone contains mostly shrubs and a few trees. The common species in this zone are Buttonbush, Sweet Pepperbush, blueberry, and Swamp Candle. The center of the pond harbors the most unique and has the wettest hydrologic regime. In winter and spring water levels are up to 2 ft. deep, but by late summer there is no standing water. Spring species include Buttonbush, which is mostly inundated but leafs out above the water level, and sphagnum moss, which floats in the water along with mermaid weed. In late spring, a rare amphibian species breeds in the standing water. Late in the summer, when the center zone is dry, herbaceous vegetation is abundant. Species include rushes, sedges, grasses, Mermaid-weed, and Virginia Meadow-beauty. The central zones intermingle to form a mosaic of shrub swamp with herbaceous openings.

Prepared by: J. Christopher Ludwig

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